Foot Valve supplier in Sharjah

Middleeast Valve is the prime Foot valve supplier in Sharjah .We supplies good quality of valves to Ajman, Abu Dhabi and Dubai.

Description:

Available Materials: SS304, SS316, Cast Iron and Ductile Iron, WCB

Class: 150 to 300

Nominal Pressure: PN10 to PN63

Size: 1/2" to 24"

Ends: Flanged, Threaded

A foot valve is a type of check valve used in pumping systems to prevent the backflow of fluid when the pump is not in operation. It is typically installed at the bottom of a suction pipe or hose, submerged in the fluid being pumped. The name "foot valve" comes from its shape, as it usually has a large opening at one end resembling a foot.

The purpose of a foot valve is to maintain the prime of a pump and prevent the loss of fluid from the system. When the pump is turned off, the foot valve closes due to gravity, preventing the fluid from flowing back down the suction pipe. This helps maintain the system's efficiency by keeping the pump primed and reducing the need for re-priming or air evacuation.

Working Principle of foot valve:

A foot valve is a type of check valve that is installed at the bottom of a suction pipe or hose in a pumping system. Its primary function is to allow the flow of fluid (liquid or gas) in one direction while preventing backflow or reverse flow.

The working principle of a foot valve is relatively simple. It consists of a valve body with an inlet and an outlet, a closure mechanism (such as a hinged flap or a spring-loaded disc), and a strainer or mesh screen.

Here's how it works:

- Installation: The foot valve is typically installed at the end of a suction pipe or hose in a well, reservoir, or other fluid source. The valve body is positioned in a way that the inlet side is submerged in the fluid source, while the outlet is connected to the suction line of the pump.

- Fluid Intake: When the pump is started, it creates a pressure difference between the suction line and the fluid source. This pressure difference causes the fluid to flow from the source towards the pump.
- Opening: As the fluid flows towards the foot valve, it exerts pressure on the closure mechanism, which helps to keep the valve closed initially. However, as the pressure builds up, it overcomes the resistance of the closure mechanism, causing it to open.
- Fluid Flow: Once the valve opens, the fluid is allowed to flow through the valve body and into the suction line of the pump. The strainer or mesh screen on the inlet side prevents large debris or solid particles from entering the valve and clogging the pump.

Middleeast Valve is the prime Foot valve supplier in Sharjah and the foot valve ensures that the pump remains primed and ready for operation by maintaining a continuous flow of fluid from the fluid source while preventing the reverse flow of fluid when the pump is not in operation.

Advantages of foot valve:-

- ·Foot valves are beneficial because they prevent damage to water pumps that can occur due to dry runs
- ·These valves are a necessary part of all water pumping systems.
- ·The foot valve solves this problem effectively.

Parts of foot valve:-

- Body
- Valve Disc
- Fixing Bolts
- Fixing screws
- Strainer flanged
- Strainer

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